

6 October 2014

# U.S. Department of Energy Public Stakeholder Meeting: Financing Energy Infrastructure (Transmission, Storage, and Distribution)

## Munich RE – Green Tech Solutions Strong Partner in Renewable Energy Risk Solutions

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### 1 Munich RE

- Munich RE = reinsurance company with headquarter in Munich, Germany and worldwide spread subsidiaries
- One of the leading reinsurances (based on net premiums)
- Worldwide activities through several brands, which are divided into 3 main insurance divisions: Reinsurance, Health, Primary insurance and the company's asset management
- Clients value Munich RE for its expertise, reliability (reputation) and its solvency → underlined by very strong ratings
- It is strongly committed to climate protection: well known for research on natural catastrophes (NatCatService) and also due to MEAG (asset manager) as active investor in clean technologies through *Renewable Energy New Technologies "RENT"* initiative. (Target investment: €2.5 billion globally, but NOT U.S. tax equity provider)
- Corporate Insurance Partner unit of Reinsurance division, the Primary Insurer within the Reinsurer that bundles Munich RE's expert know-how to make large single risks assessable and insurable for medium-sized and large industrial clients worldwide

### 2 Green Tech Solutions

- Green Tech Solutions is section within Corporate Insurance Partner which focuses on innovative insurance solutions for the renewable energy and clean technologies sector.
- First market mover for performance warranty insurance covers and commitment to continuing value proposition as insurance as a business and finan
- What we have done so far / current product portfolio:
  - Photovoltaic (and Concentrated PV)
    - Corporate Cover for ERM Warranty: up to 25 Manufacturers insured since 2009; over 100 site audits performed. Technology "Champions"
    - Project "Option" Cover: insured projects in U.S., South Africa, Europe, Thailand, Japan to cover manufacturer insolvency and park performance

- MR subsidiary, Hartford Steam Boiler (HSB): solar park revenue shortfall / lack of sun / energy efficiency
- Concentrated Solar Power
  - Delay Liquidated Damages and Output covers (Solana / Abengoa)
- Wind (on- and offshore)
  - Performance and logistical covers (North Sea)
- Others: LED, Fuel Cell
  - Module manufacturer performance warranty (output and color shift, Xicato)
  - Streetlight municipal retrofit and commercial chain retrofit projects in progress
  - Fuel Cell project financing bond support on PPA (XL and New Energy Risk cooperation)
- Besides enhancing and adapting the current portfolio, Green Tech Solutions also continuously develops new products to meet the market demand of innovative risk solutions for new green technologies.

### 3 Insurance as Business Enabler

- Currently develop additional products for Bio Fuel, Biomass, Desalination and Energy storage
- Energy Storage:
  - Determined the following risks:
    - Capacity, power and lifetime of the battery
    - Material defects
    - Material aging
  - Performance and availability guarantee would provide the clients the following potential benefits:
    - Powerful differentiator in a competitive market
    - Risk mitigation, balance sheet protection and technology assessment
    - Bankability
- For product development we cooperate with third parties which have strong expertise in this field.
- Greatest benefit of our products: providing bankability
- With our partners we introduced a unique performance insurance for Fuel Cell one month ago, which supports the investment grade rating for the project financing bond.

Our goal for energy storage financing is to enable investments and business of investors and manufacturers through the coverage of Munich RE products.

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**Risk Solutions**

